

NSTU@SCTF



Alexander Barnyakov on behalf of NSTU group



Novosibirsk State
Technical University
NETI

NSTU-NETI overview

- Novosibirsk State Technical University was found in 1950 as NETI (Novosibirsk Electrical Technical Institute) **to educate a new generation of scientists, engineers and inventors in Siberia**. The University status was assigned in 1992.
- Today NSTU is a center of the applied science. Since 2017 it is one of 22 flagship universities of the Russia. It is one of the largest and leading universities in the region.
 - 13200 – students (bachelor and masters programs)
 - 1500 – teaching staff (peramanent position)
 - 17 – faculties and institutions
- NSTU prepare high qualified specialists for different fields: nanotechnology, electronics, energy (global power grids, power electronics, distributed energy), transport solutions, IT, quantum technologies and for physics researches as well.



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Physical Engineering Faculty



- Faculty of Physical Engineering was established in 1966 with active impact from G.I.Budker (BINP) and G.P.Lyshinsky (NETI). The faculty always works in close cooperation with Siberian Branch of the Russian Academy of Science.
- Faculty of Physical Engineering trains specialists in physics, laser technologies, camerawork.
- Base department since faculty foundation is Electrophysical installations and Accelerators department. The department is located at BINP and prepare engineers and researchers in the field of particle and atomic nucleus physics, accelerator physics, plasma physics and controlled thermonuclear synthesis, synchrotron radiation and free electron lasers.
- Currently about 30% of BINP scientific and engineering staff are graduated from NSTU-NETI.



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Electrophysical Installations and Accelerators department for the SCTF project



Personel	Activity for SCTF project
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Permanent staff

A. Barnyakov	R&D of PID system based on aerogel: FARICH, ASHIPH
M. Barnyakov	R&D of MCP PMT photon detector option for endcap of FARICH system
V. Blinov	Expert in the field of DC development
D. Grigoriev	R&D of technology for fast scintillation crystals based on ortosilicates production
S.Pivovarov	Main designer of PANDA magnetic sysytem (which is very similar to SCTF CDR)
L. Epshtain	FPGA based readout electronics development

Students:

D. Savenkov	Development of the stand for SiPM radiation hardness study with neutrons
M.Grigoriev	Radiation hardness tests of new wires for SCTF DC
A.Kovtonogov	Development of stand for SiPM arrays characterization to be used in FARICH



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Summary

- NSTU has already provided and continues provide valuable contribution to the project of SCTF with researches of its students and personnel.
- It is desirable to engage in the project young and smart people from other NSTU faculties and departments. Because high qualified people from departments of applied mathematics, industrial electronics and other NSTU departments will be very required resources for successful realization of the whole project.
- Partnership around the SCTF project is able to attract more and more young people to the Physical engeneireeng faculty and to other NSTU faculties as well.



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